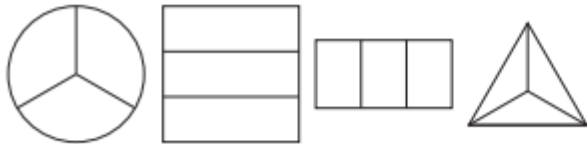# Tuesday ch3 fractions of amounts

Fractions
Selected National Curriculum Programme of Study Statements Pupils should be taught to: ■ recognise, find, name and write fractions $\frac{1}{3}, \frac{1}{4}, \frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity ■ write simple fractions, for example $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$
The Big Ideas Fractions involve a relationship between a whole and parts of a whole. Ensure children express this relationship when talking about fractions. For example, *'If the bag of 12 sweets is the whole, then 4 sweets are one third of the whole.'* Partitioning or 'fair share' problems when each share is less than one gives rise to fractions. Measuring where the unit is longer than the item being measured gives rise to fractions.
Mastery Check Please note that the following columns provide indicative examples of the sorts of tasks and questions that provide evidence for mastery and mastery with greater depth of the selected programme of study statements. Pupils may be able to carry out certain procedures and answer questions like the ones outlined but the teacher will need to check that pupils really understand the idea by asking questions such as 'Why?', 'What happens if …?', and checking that pupils can use the procedures or skills to solve a variety of problems.

| Mastery	Mastery with Greater Depth
Complete: Half of 12 is ☐ $\frac{2}{4}$ of 12 is ☐ $\frac{1}{4}$ of 20 = $\frac{3}{4}$ of 20 =	Complete: Half of ☐ is 6 $\frac{2}{4}$ of ☐ is 6 $\frac{1}{4}$ of ☐ = 5 $\frac{3}{4}$ of ☐ = 15 20 children are in a class and $\frac{1}{4}$ are girls. How many are boys?

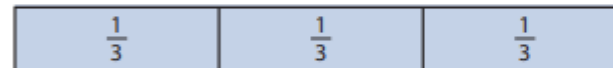| Mastery	Mastery with Greater Depth
Shade $\frac{1}{3}$ of each shape.	Use the pictures to complete the number sentences.

Shade $\frac{1}{3}$ of each shape.

Use the pictures to complete the number sentences.

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
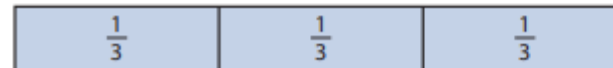
☐ is less than ☐   ☐ < ☐

☐ is greater than ☐   ☐ > ☐

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

$\frac{3}{\square}$ is greater than $\frac{2}{\square}$ $\frac{3}{\square}$ is less than $\frac{3}{\square}$

Jo bought a bag of 12 cherries.

Jo ate half the number of cherries in the bag.

How many cherries did Jo eat?

Jo bought a bag of cherries.

Jo ate half the number of cherries in the bag.

Jo had 7 cherries left. How many cherries did Jo buy?

Sam bought a bag of 18 cherries.

Sam ate 6 cherries.

What fraction of the bag of cherries did Sam eat?

Sam bought a bag of cherries.

Sam ate 9 cherries and had 3 left over.

What fraction of the bag of cherries did Sam eat?

Mastery	Mastery with Greater Depth
If you count in steps of $\frac{1}{2}$ starting from 0, how many steps will it take to reach: 2, 4 or 6 What do you notice?	$\frac{1}{3}$ of 3 = 1 $\frac{1}{3}$ of 6 = 2 $\frac{1}{3}$ of 9 = 3 $\frac{1}{3}$ of 12 = Continue the pattern. What do you notice?
Shade the cylinders. $\frac{1}{3}$ full $\frac{2}{3}$ full $\frac{3}{3}$ full $\frac{1}{4}$ full *This may first be carried out as a practical activity.*	Mark another fraction on this line. And another, and another. 0 $\frac{3}{4}$
Which of these diagrams have $\frac{1}{4}$ of the whole shaded? Explain your reasoning.	Colour in $\frac{1}{4}$ of each of these grids in a different way. Try to think of an unusual way. How many squares did you colour each time?